### INVENTOR SEARCH

=> d ibib abs 17 1-2

L7 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2009:1038572 HCAPLUS Full-text

DOCUMENT NUMBER: 151:268208

TITLE: Restoring worn rail clip shoulders on

concrete rail ties, by applying a polymeric material to the worn rail clip shoulder and

curing the polymeric material

INVENTOR(S): Stolarcyk, Craig B.; Rogers, Paul D.; Pagni,

Alan G.

PATENT ASSIGNEE(S): Willamette Valley Company, USA

SOURCE: Can. Pat. Appl., 17pp.

CODEN: CPXXEB

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
CA 2654476	A1	20090821	CA 2009-2654476		20090217
US 20090212452	A1	20090827	US 2008-34918		20080221
GB 2457582	A	20090826	GB 2009-2740		20090219
PRIORITY APPLN. INFO.:			US 2008-34918	A	20080221

The method (A1) of restoring a worn rail clip shoulder located on a concrete rail tie, comprises the steps of (a) applying a polymeric material to a worn area of the worn rail clip shoulder located on the concrete rail tie, and (b) restoring the worn area by curing the polymeric material so that it adheres to the worn rail clip shoulder, and having the polymeric material being substantially sag-resistant, and substantially maintaining the original shape of the rail clip shoulder, without substantial runoff from the concrete rail tie during the restoring of the worn rail clip shoulder, or the restoring method comprises above A1 method, wherein the elongation of the polymeric material is ≥10%, or the restoring method comprises above A1 method, wherein the tensile strength of the polymeric material of the restored rail clip shoulder is ≥3800 psi, or the restoring method comprises above A1 method, wherein the polymeric material consists of ≥1 of a polyurethane, a polyurea, and/or a polyurethane-polyurea.

L7 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2008:1247518 HCAPLUS Full-text

DOCUMENT NUMBER: 149:449527

TITLE: Method for restoring used railroad ties and

the restored railroad ties formed thereby

INVENTOR(S): Stolarczyk, Craig B.; Rogers, Paul

D.; Cote, Philip N.

PATENT ASSIGNEE(S): Willamette Valley Company, USA SOURCE: U.S. Pat. Appl. Publ., 6pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080251594	A1	20081016	US 2006-383855	20060517
PRIORITY APPLN. INFO.:			US 2006-383855	20060517

This invention provides a method for restoring at least one means defining a railroad spike hole located in a used railroad tie. In this way, the restored railroad tie can be reused in subsequent rail replacement operations. The restored railroad tie is capable of having a railroad spike penetrate and be retained within the confines of the restored railroad spike hole without substantial bending problems. The used railroad tie provided has at least one spike hole located therein. In each the means defining a railroad spike hole is formed a polymeric plug. The polymeric plug comprises a polymeric plug formed of a polymeric material including a plurality of flexible, readily deformable micro-inclusions which allow the formation of spike insertion pathways that track the insertion forces of the railroad spike as it is driven into a material thereby facilitating introduction of the railroad spike into said polymeric plug. The polymeric plug is capable of penetration by and retention of the railroad spike there within.

RESULTS FROM SEARCHES IN CAPLUS, WPIDS, JAPIO, COMPENDEX, RAPRA, AND PASCAL

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=> d que stat 122
           127 SEA FILE=HCAPLUS ABB=ON RAIL(4A)(?SEAT? OR TIE?)
L11
            58 SEA FILE=HCAPLUS ABB=ON L9 AND (?RESTOR? OR ?REPAIR? OR
               ?DAMAG? OR ?CONCRETE? OR ?POLYMER? OR ?POLYURETHAN? OR
               ?AMBIENT? OR ?CURING? OR ?CURE? OR ?TIME? OR ?TEMP? OR
               ?PRESSURE? OR SAG?(6A)?RESIST? OR SAG? OR ?SHAPE? OR ?RUNOFF?)
             3 SEA FILE=HCAPLUS ABB=ON L11 AND (GEL? OR SET)
L13
            58 SEA FILE=HCAPLUS ABB=ON L13 OR L11
L14
            30 SEA FILE=HCAPLUS ABB=ON L14 AND (PRD<20040324 OR PD<20040324)
L15
           30 SEA FILE=HCAPLUS ABB=ON L15 AND ?RAIL?
L16
L17
            9 SEA FILE=HCAPLUS ABB=ON L16 AND ?SEAT?
           30 SEA FILE=HCAPLUS ABB=ON L16 OR L17
L18
         1998 SEA L18
L19
L20
            17 SEA L19 AND ?POLYURETHAN?
L22
            46 DUP REMOV L20 L18 (1 DUPLICATE REMOVED)
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# => d ibib abs 122 1-46

L22 ANSWER 1 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN 2009:666403 HCAPLUS Full-text ACCESSION NUMBER: Chair [Machine Translation]. TITLE:

Fujimori, Nobuto INVENTOR(S):

PATENT ASSIGNEE(S): Okamura Mfg. Co., Ltd., Japan

SOURCE: Jpn. Tokkyo Koho, 8pp.

CODEN: JTXXFF

DOCUMENT TYPE: Pat.ent. LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 4272031 ITY APPLN. INFO.: [Machine Translation open facing toward component which is seat shell which performentioned seat outer part direction receiving component guide rail of left front and back cent guide rail has the subordinate surface features that the surface and the more	B2 on of D the fr provid ossesse the shell on befo the tering front e of th laminat vable the	20090603 escriptors]. ont the seat ed on the leg s flexibilitie , the center re the tilt : front-back d: ght 1 pair if control poss: back direction e seat shell ed spring who sail of the sa movable rai.	JP 2003-344568  JP 2003-344568  Way those left and right which is supported by g body, in the chair what, in the front part of of the crosswise direction the plural slight faces, the movable radioility alongside the abon which is adhered to it installs, Furthermore ich with the both sides and supports the frontal	20031002 < 20031002 < ght mutually you the seat receiving ich has the hard f the tion as boundary, time the seat ts which face, the il which faces as forementioned the both sides e, the chair which subordinate o forward from the

L22 ANSWER 2 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2008:877204 HCAPLUS Full-text TITLE: Rail wire tie and connecting construction method of rail [Machine

Translation].

INVENTOR(S): Ishikawa, [NAME NOT TRANSLATED]; Fujino, Nobuyuki;

Hakiri, Katsushi; Nakanowatari, Hiromasa; Kishida,

Hitoshi; Kawamura, Hideyuki; Katsuki, Makoto

PATENT ASSIGNEE(S): Central Japan Railway Company, Japan; JFE Koken

Corporation

SOURCE: Jpn. Tokkyo Koho, 13pp.

CODEN: JTXXFF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 4124349	B2	20080723	JP 2003-184556	20030627 <
PRIORITY APPLN. INFO.:			JP 2003-184556	20030627 <

[Machine Translation of Descriptors]. It possesses the based frame and the AΒ fixed lateral clamp head and the movable side clamp head, the based frame has tension cylinder head and 2 these rods and fixing block, the tension cylinder head has the tension cylinder and cylinder retention block and mobility block and the displacement sensor, as for cylinder retention block can provide the groove which inserts the xail in central lower part, it inserts the rod into the both sides edge and is packed and it possesses the tubular rod holder which is kept, the tension cylinder is locked, mobility block has with the movable lateral pressure transmission board and the movable clamp head holder, as for the movable lateral pressure transmission board inserts the rail in central lower part the groove section where To possess, to be connected by the piston rod of the tension cylinder, the movable clamp head holder to be formed by sliding unrestricted tube vis-a-vis the rod, to be locked by the both ends section of the movable lateral pressure transmission board, the displacement sensor, the detection edge being installed in the movable lateral pressure transmission board and to detect the displacement magnitude of mobility block, 2 these rods, on the one hand end penetrating the movable clamp head holder of mobility block and the rod holder of cylinder retention block and to be locked by cylinder retention block, fixing block to have with the fixed lateral pressure transmission board and the fixed clamp head holder, as for the f.

L22 ANSWER 3 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2007:1133337 HCAPLUS Full-text

TITLE: Exhaust control control equipment of motorcycle

[Machine Translation].

INVENTOR(S): Kawamoto, Osamu

PATENT ASSIGNEE(S): Suzuki Co., Ltd., Japan SOURCE: Jpn. Tokkyo Koho, 11pp.

CODEN: JTXXFF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 3988379	B2	20071010	JP 2000-331440	20001030 <
PRIORITY APPLN. INFO.:			JP 2000-331440	20001030 <

AB [Machine Translation of Descriptors]. After immediately after the head pipe which supports the nosewheel being opened to the crosswise direction as it is connected by the rear end of the mainframe and these mainframes of the left and right pair which extends to the rear under tilt, it has the body frame

which possesses with the seat rail of the left and right pair which extends to the upper part after the tilt from the rear section of the center frame and these center frames of the left and right pair which extends facing toward abbreviation top and bottom one swing unrestrictedly, it supports the swing arm which supports the rear wheel elastically in the above-mentioned body frame at the same time with rear shock unit, to load 4 cycle multiple cylinder engines onto the above-mentioned body frame, this engine Gathering converting to one in the motorcycle which connects the exhaust pipe which forms engine exhaust type in the front part of each cylinder, the above-mentioned each exhaust pipe in the lower part after the above-mentioned engine, although it forms the gathering section, through the connection box, it connects this gathering section and the muffler which is arranged in the rear wheel side of the body unilaterality in the pivot axis which was constructed in the abovementioned center frame the front end with the frontal lower part of the above-mentioned swing arm which is stuck, distribution facilities does the above-mentioned connection box in the space of the triangle which is formed with the above-m.

L22 ANSWER 4 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN 2006:832430 HCAPLUS Full-text ACCESSION NUMBER:

Railroad type steel girder capable of TITLE:

lowering the floor height of a building and the cost for framework by reducing the maximum bending moment

of a mail girder and a tie beam

Lee, Chang Nam INVENTOR(S):

S. Korea PATENT ASSIGNEE(S):

SOURCE: Repub. Korean Kongkae Taeho Kongbo

CODEN: KRXXA7

DOCUMENT TYPE: Patent LANGUAGE: Korean

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2005002934	A	20050110	KR 2003-42266	20030626 <
PRIORITY APPLN. INFO.:			KR 2003-42266	20030626 <

A railroad type steel girder is provided to heighten economical efficiency by AΒ reducing the floor height of a building and increasing the number of floors within the height limit of a building. The railroad type steel girder comprises the steps of forming a rail girder(3) and a tie beam(2) on each third part of vertical and horizontal girders of a column(13), forming a gerber joint(12) by fitting an intermediate tie beam(2) to the center of the rail girder(3), and placing base concrete in the square part around the column composed of the rail girder(3) and the time beam(2). A plate deck(9) is laid vertically on a lower flange of the rail girder(3) and a sleeper(10) to use as a permanent form of plate concrete and a floor deck(4) is placed horizontally on a composite beam(6) and a tie beam(2a) to use as a permanent form of floor concrete.

L22 ANSWER 5 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:565148 HCAPLUS Full-text

DOCUMENT NUMBER: 141:90090

TITLE: Method of producing polyurethane cellular

moldings, metallic mold and component for metallic

INVENTOR(S): Kubota, Hiroyuki

PATENT ASSIGNEE(S): Bridgestone Corporation, Japan

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

							DATE											
							2004											<
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	ΚE,	KG,	ΚP,	KR,	KΖ,	LC,	LK,	
		LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	NΖ,	
		OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ТJ,	TM,	
		TN,	TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VC,	VN,	YU,	ZA,	ZM,	ZW			
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	
		BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	
		ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	
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							2004											
							2004											
JP	2004	2028					2004											
-	2004						2004											
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_	2511						2004											
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The invention relates to a method of producing a foam molding, a metallic mold, and a component for a metallic mold, with which a foam molding, such as polyurethane foam with a fastener etc., can be produced smoothly at a high yield. A rail is fixed to a rail installation seat on a cavity side surface of a lower mold. On the bottom surface of a recess portion of the rail is provided a fastener. After the rail is made to hold the fastener, a raw material of polyurethane liquid is poured and caused to foam, and polyurethane foam is removed from the mold after foaming. For the removal of the foam, a movable portion is advanced so that a polyurethane foam body in an undercut portion is pushed and compressed. This eliminates the possibility of the undercut portion interfering with the rail installation seat and the rail, and therefore the removal can be made smoothly, and cracks do not occur in the polyurethane foam. OS.CITING REF COUNT:

1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(2 CITINGS)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 6 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:412897 HCAPLUS Full-text DOCUMENT NUMBER: 140:427619

TITLE: Concrete railroad tie turnout

assembly

INVENTOR(S): Pilesi, William D.

PATENT ASSIGNEE(S): KSA Limited Partnership, USA

SOURCE: PCT Int. Appl., 26 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

W: AU, CA, MX

PRIORITY APPLN. INFO.: US 2002-287366 A 20021104 <--

AB Concrete railroad ties are made having steel plates cast directly into the concrete railroad tie so that the top surface of each steel plate is even with the top surface of the concrete railroad tie. Fasteners for the rails can be welded to anywhere within the steel plate. Each steel plate can be cast into one of two different positions of the concrete railroad tie thus, creating more flexibility as to the positions of the rail fasteners on the railroad tie and reducing the length of the steel plate needed by 0.5-3 in. By utilizing this assembly, the amount of concrete the patterns needed in a turnout is reduced.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 7 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2006:721196 HCAPLUS  $\underline{\text{Full-text}}$ 

DOCUMENT NUMBER: 145:217186

TITLE: Apparatus for manufacturing high purity rust inhibitor

INVENTOR(S):
Jang, Jeong Man

PATENT ASSIGNEE(S): Korea Hisis Chemicals Co., Ltd., S. Korea

SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE: Patent LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. APPLICATION NO. KIND DATE \_\_\_\_\_ \_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ KR 2004040263 20040512 KR 2002-70198 20021101 <--Α PRIORITY APPLN. INFO.: KR 2002-70198 20021101 <--

An apparatus for manufacturing high purity rust inhibitor is provided which reduces construction cost, enables the furnace to be easily repaired and maintained and produces the rust inhibitor for hygienic drinking water that does not contain impurities. The apparatus for manufacturing high purity rust inhibitor comprises a metal chimney, cylindrical graphite chimney, separation type upper iron frame part, fixed fastening bolt, separation type intermediate iron frame part, raw material hopper, separation type lower iron frame part, burner resting stand, furnace support, molding frame, xail, cross-tia, insulator, insulation castable, automatic temperature sensor, insulator, insulation fire brick, fire brick, graphite crucible, crater, tapping hole and hook type stainless steel rod, wherein the apparatus is formed in a cylindrical vertical shape and divided into separation type three-step iron frame parts of the upper iron frame part, intermediate iron frame part and lower iron frame part that are sep. connected to each other, and a cylindrical graphite crucible is installed at the center of the apparatus so that the graphite crucible is controlled to a melting temperature of 1,300 to 1,500° through the automatic temperature sensing sensor.

L22 ANSWER 8 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:798578 HCAPLUS Full-text

DOCUMENT NUMBER: 141:296966

TITLE: Moldings for automobile seat rails

for lightly sliding automobile seats,

comprising a main part consisting of polyolefins and a lip part consisting of thermoplastic elastomers and

having the lip part coated with rigid polymers

with low frictional coefficient

INVENTOR(S): Shiota, Akito; Kanazawa, Yoshihiro; Miyagawa, Naohisa;

Kato, Katsuhisa

PATENT ASSIGNEE(S): Aisin Seiki Co., Ltd., Japan; Tokiwa Chemical

Industry, Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PRIORITY APPLN. INFO.: JP 2003-108439 20030307 <--

The moldings (A1) for laying on guide xxils for moving automobile seats forward and backward, comprise moldings provided on two sides of the leg parts of the seats by facing the moldings each other, and have the moldings consisting of synthetic polymers in the length direction, and comprise a main part and a lip part provided on a side of the main part, and have the main part molded from polyolefin-type xx1xmexs (A), and have the lip part presssliding on two sides of the leg portions of the seats, molded from thermoplastic elastomers, and have the back side of the lip part coated with rigid polymers having low frictional coefficient to form coatings with thickness ≤0.1 mm, or the moldings comprise above A1 moldings having the exposed outer surface of the main part consisting of highly crystalline polypropylene (I), or the moldings comprise above A1 moldings having the coating on the lip part comprising mixts. of synthetic polymers with melt viscosity different from the melt viscosity of A polyolefins, and comprising mixts. of polyolefin-type polymers (B) with low melt viscosity and high flowability as the base material and particles or powders of polyolefin-type polymers with low flowability and melt viscosity greater than the melt viscosity of B base polymers, and exhibiting a raised and depressed surface on extruding the mixts. A molding for automobile seat rails comprised I as the main part, a polyolefin-type elastomer or styrene-type elastomer as the lip part, highly crystalline I as the protective surface layer on the main part, and a mixture of polyethylene (II) with melt flow rate (MFR) at  $190^{\circ} \ge 0.5 \text{ g}/10$ min and particles or powders of II with MFR  $\leq 0.1$  q/10 min as the coating on the lip part.

L22 ANSWER 9 OF 46 WPIDS COPYRIGHT 2009 THOMSON REUTERS on STN

ACCESSION NUMBER: 2004-102437 [11] WPIDS

DOC. NO. CPI: C2004-042239 [11]

TITLE: Leather-like seat substrate for motor vehicles,

comprises ultrafine fiber comprising ethylene-vinyl

alcohol group copolymer and nylon, and

polymeric elastic component comprising ammonium

9/11/09 10/598,379

hydroxide

DERWENT CLASS: A17; A82; F08; G02

INVENTOR: KATAYAMA T; TANBA Y; YASUDA Y

PATENT ASSIGNEE: (KURS-C) KURARAY CO LTD

COUNTRY COUNT:

PATENT INFO ABBR.:

PATENT NO KIND DATE WEEK LA PG MAIN IPC

JP 2003147688 A 20030521 (200411)\* JA 9[0]

APPLICATION DETAILS:

PATENT NO KIND APPLICATION DATE \_\_\_\_\_\_

JP 2003147688 A JP 2001-342609 20011108

PRIORITY APPLN. INFO: JP 2001-342609 20011108

AN 2004-102437 [11] WPIDS

AB JP 2003147688 A UPAB: 20050528

> NOVELTY - A leather-like seak substrate is non-woven fabric obtained by performing three-dimensional intertwinement of ultrafine fiber having size of 0.5 dtex or less, and comprises polymeric elastic component (A). The fiber comprises 30-90 weight% of ethylene vinyl alcohol group copolymex containing 25-70 mol% of ethylene, and 90-70 weight% of nylon. 100 wt.pts of component (A) comprises 10-200 wt.pts of aluminum hydroxide.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for manufacture of leather-like seat substrate. An intertwined non-woven fabric comprising ultrafine fiber producing fiber (I) containing ethylene-vinyl group copolymer and nylon is produced. A polymeric elastic component containing aluminum hydroxide is provided on the non-woven fabric and the fabric (I) is converted into bundle of ultrafine fiber having size of 0.5 dtex or less, to manufacture the substrate.

USE - For seat of rail vehicles, motor vehicles and air craft. ADVANTAGE - The leather-like %%% substrate has excellent fuse resistance, flame retardance and dyeability, soft feel, and favorable strength.

L22 ANSWER 10 OF 46 WPIDS COPYRIGHT 2009 THOMSON REUTERS on STN

ACCESSION NUMBER: 2003-590481 [56] WPIDS

DOC. NO. CPI: C2003-160216 [56]
DOC. NO. NON-CPI: N2003-470090 [56]
TITLE: Manufacturing method of seat cushion pad for

use in motor vehicle, rail vehicle, involves

arranging multiple hook and loop fasteners in cavity of

DERWENT CLASS:

curved molding units along longitudinal direction A32; A95; P23; Q39 FUJIMOTO T; MIKAMI R; SHIOMORI H INVENTOR: PATENT ASSIGNEE: (TOYF-C) TOYO RUBBER IND CO LTD COUNTRY COUNT: 1

PATENT INFO ABBR.:

PATENT NO KIND DATE WEEK LA PG MAIN IPC \_\_\_\_\_

JP 2003011137 A 20030115 (200356)\* JA 6[7]

APPLICATION DETAILS:

PATENT NO KIND APPLICATION DATE

JP 2003011137 A JP 2001-198277 20010629

PRIORITY APPLN. INFO: JP 2001-198277

20010629

AN 2003-590481 [56] WPIDS

AB JP 2003011137 A UPAB: 20050531

NOVELTY - The method involves arranging multiple hook and loop fasteners (4) along longitudinal direction, in a cavity of a curved molding unit. The polyarethane foam solution is injected into the recess and cushion pad is integrally molded with the hook and loop fasteners.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for seat cushion pad.

USE - For manufacturing asat cushion pad (claimed) used in motor vehicle, rail vehicle, furniture, etc.

ADVANTAGE - The hook and loop fastener is integrally attached to cushion pad, reliably and easily. The product quality is improved. DESCRIPTION OF DRAWINGS - The figure shows the top and sectional views of the seat cushion pad. hook and loop fasteners (4)

L22 ANSWER 11 OF 46 WPIDS COPYRIGHT 2009 THOMSON REUTERS on STN

ACCESSION NUMBER: 2003-269669 [27] WPIDS

TITLE: Dyed or printed nonwoven fabrics for textile fittings in

vehicles, e.g. car seat covers, comprise fabric based on polyester and polyamide microfibers, treated

with pigments and polymer binder, e.g. acrylic

polymer

DERWENT CLASS: A14; A17; A23; A95; E24; F04; F06

INVENTOR: BARTL H; WILHELM V

PATENT ASSIGNEE: (FREU-C) FREUDENBERG SA; (FREU-C) FREUDENBERG C

COUNTRY COUNT: 1

PATENT INFO ABBR.:

PATENT NO	KIND DATE	WEEK LA	PG	MAIN IPC	
DE 10129366 DE 10129366		(200327)* DE (200938) DE			<

# APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 10129366 DE 10129366	<del>-</del>	DE 2001-1012936 DE 2001-1012936	

PRIORITY APPLN. INFO: DE 2001-10129366 20010620

AN 2003-269669 [27] WPIDS

AB DE 10129366 A1 UPAB: 20090617

NOVELTY - Nonwoven fabrics based on polyester and polyamide microfibers, dyed and/or printed with a combination of inorganic and/or organic pigments and binder(s) selected from alkyl (meth)acrylate polymers, co- or ter-polymers of alkyl (meth)acrylate and/or styrene and/or vinyl acetate (VA), ethylene-VA or VA-maleate ester copolymers and polyurethanes.

DETAILED DESCRIPTION - Dyed and/or printed nonwoven fabric, made from unsplit and/or at least partly split microfibers and/or microfilaments of synthetic polymers containing polyester, polyamide and optionally polyurethane components, have dyeing/printing carried out with a combination of inorganic and/or organic pigment(s) and binder(s) selected from optionally crosslinked

polyalkyl (meth)acrylates and their co- or ter-polymers, co- or ter-polymers of alkyl (meth)acrylates and/or styrene and/or vinyl acetate, ethylene-vinyl acetate copolymers, vinyl acetate-maleate ester copolymers and aliphatic polyurethanes.

INDEPENDENT CLAIMS are also included for (1) a method as described above for the production of dyed and/or printed nonwoven fabrics, and

(2) textiles comprising nonwoven fabrics as above for fittings in transport vehicles.

USE - For fittings in vehicles, especially interior fittings in cars, boats, rail coaches and aircraft, e.g. seat covers, side panels, roof lining, carpeting and glove boxes.

ADVANTAGE - Dyed and/or printed nonwoven fabric based on polyester, polyamide and optionally polyurethane microfibers, with a very good appearance, excellent light fastness at elevated temperature and/or in presence of moisture, and excellent non-fogging properties. The dye or print shows good resistance to mechanical wear.

L22 ANSWER 12 OF 46 WPIDS COPYRIGHT 2009 THOMSON REUTERS on STN

ACCESSION NUMBER: 2003-580591 [55] WPIDS

DOC. NO. CPI: C2003-157277 [55]
DOC. NO. NON-CPI: N2003-461674 [55]
TITLE: Cushion pad manufacture for seats in motor

vehicle, involves holding ends of latching strip by engagement piece of retainer in mold, and forming notch in engagement piece, so as to join foam resin pad and

latching strip

DERWENT CLASS: A32; A84; A95; P26; Q39 INAGE S; SHIOMORI H INVENTOR:

(TOYF-C) TOYO RUBBER IND CO LTD PATENT ASSIGNEE:

COUNTRY COUNT:

PATENT INFO ABBR.:

PATENT NO KIND DATE WEEK LA PG MAIN IPC \_\_\_\_\_\_ JP 2002369986 A 20021224 (200355)\* JA 7[12] <--

APPLICATION DETAILS:

APPLICATION DATE PATENT NO KIND \_\_\_\_\_ JP 2002369986 A JP 2001-179075 20010613

PRIORITY APPLN. INFO: JP 2001-179075 20010613

AN 2003-580591 [55] WPIDS

JP 2002369986 A UPAB: 20050904 AΒ

> NOVELTY - The method involves holding both ends of a latching strip (1) inserted into a retainer arranged within the lower mold (22), by the engagement pieces (33) projecting from the edge of retaining wall (31). A notch (34) is formed along width direction in the engagement piece so as to join the foam resin pad (a1) and latching strip.

DETAILED DESCRIPTION - The foamed resin material is injected into the cavity of retainer, provided at the inner face of a mold (2), after inserting latching strip comprising laminated flexible polyurethane foam base (11), elastomer film (12), and the hook and loop fastener (13).

INDEPENDENT CLAIMS are included for the following: (1) cushion pad manufacturing apparatus; and (2) cushion pad seat.

USE - For manufacturing cushion pad used for seats of motor vehicle, rail vehicle, etc.

ADVANTAGE - Enables reliable insertion and integration of the latching strip. Prevents an air pool during foaming and thereby prevents the peeling of the resin. Good cushion pad molding is obtained. DESCRIPTION OF DRAWINGS - The figure shows the partially expanded sectional view of the cushion pad molding apparatus. latching strip (1)

mold (2)

flexible polyurethane foam base (11) elastomer film (12)

hook and loop fastener (13)

lower mold (22)

retaining wall (31)

engagement pieces (33)

notch (34)

foamed resin pad (a1)

L22 ANSWER 13 OF 46 WPIDS COPYRIGHT 2009 THOMSON REUTERS on STN

ACCESSION NUMBER: 2002-744067 [81] WPIDS DOC. NO. CPI: C2002-211081 [81]

Leather-like sheet base material for artificial leather, TITLE:

contains ultrafine fiber of organic phosphorus component

copolymerization polyester, and polymeric elastic material of polycarbonate group

polyurethane

A23; A25; A32; A95; F08 DERWENT CLASS:

TANBA Y; YASUDA Y INVENTOR:

PATENT ASSIGNEE: (KURS-C) KURARAY CO LTD

COUNTRY COUNT:

PATENT INFO ABBR.:

PATENT NO KIND DATE WEEK LA PG \_\_\_\_\_ JP 2002201574 A 20020719 (200281)\* JA 8[0]

APPLICATION DETAILS:

PATENT NO KIND APPLICATION DATE JP 2002201574 A JP 2000-396454 20001227

PRIORITY APPLN. INFO: JP 2000-396454 20001227

2002-744067 [81] WPIDS AN

JP 2002201574 A UPAB: 20050527 AB

> NOVELTY - The fire-resistant leather-like sheet base material comprises polymeric elastic material (B) by which a three-dimensional intertwining of an ultrafine fiber (A) of 0.5 dtex or less is carried out. At least a portion of fiber (A) contains organic phosphorus component copolymerization polyester. The elastic material contains polycarbonate group polyurathane which copolymerizes the organic component.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Suede tone artificial leather; (2) Tone artificial leather with silver;
- (3) Seat for vehicles; and
- (4) Manufacture of fire-resistant leather-like sheet base material.

USE - For suede tone artificial leather, seat for vehicles (both claimed), seat for rail vehicles and seat for air crafts, and for applications such as wallpaper and carpet.

ADVANTAGE - The fire-resistant leather-like sheet base material has excellent flame retardance, is halogen-free, has excellent durability and natural leather-like soft feel. The bleed out of the fogging derived from a flame retardant is not produced.

L22 ANSWER 14 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2002:683082 HCAPLUS Full-text

TITLE: Laying method of seat rail.

[Machine Translation].

INVENTOR(S): Fujisaki, Osamu; Hasegawa, Toshiki

PATENT ASSIGNEE(S): [NAME NOT TRANSLATED], Japan SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002253367	A	20020910	JP 2001-58247	20010302 <
PRIORITY APPLN. INFO.:			JP 2001-58247	20010302 <

[Machine Translation of Descriptors]. As there are no times when influence of unevenness of the laying foundation aspect is received and can lay the surface of the and the rail in horizontal state and in the stable state, being superior in withstand load support characteristic, it offers the laying method of the seat rail which can lighten time and the time when at the same time it requires for laying operation without either kind of causing organization destruction on the laying foundation aspect. Concave section 20 of the existing floor harden 1 making fill up & making the resin, it forms the surface of the existing floor 1 on the even surface, mounts rail 4 on the said even surface, after locking rail 4 with fixture 5, in said rail 4 cross direction both sides by making fill up & makes harden the resin, inclines to rail 4 cross direction both sides under destined for the direction outside rail 4 cross direction connecting the slope section 7 which, it makes form.

L22 ANSWER 15 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2002:471008 HCAPLUS Full-text

DOCUMENT NUMBER: 137:128006

TITLE: Finite element modeling of waves in a rail AUTHOR(S): Lu, W-Y.; Dike, J.; Modjtahedzadeh, A.

CORPORATE SOURCE: Sandia National Laboratories, Livermore, CA,

94551-0969, USA

SOURCE: AIP Conference Proceedings (2002),

615 (Review of Progress in Quantitative Nondestructive

Evaluation, Volume 21B), 1835-1842 CODEN: APCPCS; ISSN: 0094-243X American Institute of Physics

PUBLISHER: American
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A finite element model is developed to obtain the modes of deformation and wave velocities in a 119RE rail. Modal and transient analyses of a 180'' long rail with 30'' tie-downs are considered. Simple and ideal conditions are applied - that is the rail material is elastic and the tie-downs are rigid. In transient analyses, impact or wavelet-type excitations are applied in the web section. Simulated resonant mode shapes, frequencies, waveforms, velocities, etc. are reported.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 16 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2003:430530 HCAPLUS  $\underline{\text{Full-text}}$ 

DOCUMENT NUMBER: 139:152027

TITLE: Spray/wall interaction influences on the diesel engine

mixture formation process investigated by spontaneous

Raman scattering

AUTHOR(S): Egermann, Jan; Taschek, Marco; Leipertz, Alfred

CORPORATE SOURCE: Lehrstuhl fuer Technische Thermodynamik,

Friedrich-Alexander-Universitaet Erlangen-Nuernberg,

Erlangen, 91058, Germany

SOURCE: Proceedings of the Combustion Institute (2002

), 29(Pt. 1), 617-623

CODEN: PCIRC2

PUBLISHER: Combustion Institute

DOCUMENT TYPE: Journal LANGUAGE: English

A main topic for the further development of direct injection diesel engines AΒ is the optimization of mixture formation, as all subsequent processes like ignition, combustion, and pollutant formation are mainly influenced by the local air/fuel ratio inside the cylinder. Especially for passenger-car engines, the interaction between spray and combustion chamber walls is an important issue for mixture formation. Therefore, this interaction was the subject of the investigations described. The investigations were carried out in a heatable highpressure, high-temperature chamber under typical diesel engine conditions of 450° temperature and 50 bar pressure. A passenger-car common rail system was used as injection system which could be equipped with two different six-hole nozzles, both with common xail specific saat geometry, mini sac hole geometry, and double needle quide. In order to allow a detailed evaluation of the quality of mixture formation, a measurement technique based on spontaneous Raman scattering was applied, enabling quant. measurements of the local air/fuel ratio along a line of a few millimeters. The careful adaptation of the optical setup made it possible to sep. the weak Raman signals from background contributions, and this allowed a distinct determination of air and fuel d. in the vapor phase. The measurements were carried out at a distance of 2 mm from the wall, directly above the impact location of the spray jet, as well as inside the wall jet region. The results obtained indicate the improvement of the mixture formation inside the wall jet asconsequence of the increased air entrainment. Addnl., for the investigation of the temporal development of mixture formation, the influences of injection pressure, nozzle orifice geometry, and wall surface tomp . on mixture formation were studied.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS)

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 17 OF 46 WPIDS COPYRIGHT 2009 THOMSON REUTERS on STN

ACCESSION NUMBER: 2001-343854 [36] WPIDS

DOC. NO. NON-CPI: N2001-248990 [36]

TITLE: Apparatus for supporting the rail of a

railway includes a fixing plate mounted upon a

buffering plate of elastic material to absorb vibration and impact forces generated by the passage of a train

DERWENT CLASS: Q41

INVENTOR: JANG Y G

PATENT ASSIGNEE: (GILJ-I) GIL J Y; (JANG-I) JANG Y G; (JUNG-I) JUNG B C;

(LEEG-I) LEE G; (LEEG-I) LEE G J

COUNTRY COUNT: 92

PATENT INFO ABBR.:

AU	2001018967	А	20010530	(200152)	EN
KR	2001047256	A	20010615	(200170)	KO
KR	2001051788	A	20010625	(200172)	KO
KR	321819	В	20020202	(200255)	KO
EP	1234075	A1	20020828	(200264)	EN
CN	1391628	А	20030115	(200330)	ZH

9/11/09

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10/598,379

## APPLICATION DETAILS:

KR 396349

CN 1149316

PATENT NO	KIND	APPLICATION DATE
WO 2001036749		WO 2000-KR1326 20001117
KR 2001047256	A	KR 1999-51386 19991118
KR 321819 B		KR 1999-51386 19991118
CN 1391628 A		CN 2000-815865 20001117
EP 1234075 A1		EP 2000-981854 20001117
KR 2001051788	A	KR 2000-68589 20001117
KR 396349 B		KR 2000-68589 20001117
EP 1234075 A1		WO 2000-KR1326 20001117
US 6619558 B1		WO 2000-KR1326 20001117
AU 2001018967	A	AU 2001-18967 20001117
US 6619558 B1		US 2002-111468 20020423
CN 1149316 C		CN 2000-815865 20001117

# FILING DETAILS:

PATENT NO	KIND	PATEN	T NO
KR 321819 B KR 396349 B AU 2001018967 A EP 1234075 A1 US 6619558 B1	Previous Previous Based on Based on Based on	Publ KR 20 WO 20 WO 20	01047256 A 01051788 A 01036749 A 01036749 A 01036749 A

PRIORITY APPLN. INFO: KR 1999-51385 19991118 KR 1999-51386 19991118

US 6619558 B1 20030916 (200362) EN

B 20030902 (200412) KO

C 20040512 (200617) ZH

AN 2001-343854 [36] WPIDS

AB WO 2001036749 A1 UPAB: 20050901

NOVELTY - The rail support comprises a fixing plate (10) and a buffering plate (20) made of an elastic material such as polyurethane or rubber attached to the lower side of the fixing plate. A rectangular support portion (21) upon which the rail sits is formed on the top surface of the buffering plate and passes through a corresponding hole (11a) formed in the fixing plate to protrude above the surface thereof. Left and right fixing portions (12,13) extend from each side of the fixing body and include holes for anchor bolts to attach the assembly to a precast concrete tie. Fixing members for receiving rail fixing clips are disposed on either side of the through hole (11a), and may be welded to the top surface of the fixing plate or integrally formed thereon.

USE - For supporting the rail of a railway.

ADVANTAGE - Reduces the impact and absorbs the vibration generated by trains travelling on the xail.

DESCRIPTION OF DRAWINGS - The drawing shows a perspective view of the fixing and buffering plates.

Fixing plate (10)

Rectangular hole (11a)

Left and right fixing portions (12,13) Buffering plate (20)

Rectangular support portion (21)

L22 ANSWER 18 OF 46 WPIDS COPYRIGHT 2009 THOMSON REUTERS on STN

ACCESSION NUMBER: 1999-404300 [34] WPIDS

DOC. NO. NON-CPI: N1999-301336 [34]

TITLE: Coupling structure for attaching a cycle seat

to a cycle frame

DERWENT CLASS: Q23
INVENTOR: MUSER P

PATENT ASSIGNEE: (SUPI-N) SUPIMA HOLDINGS INC

COUNTRY COUNT: 2

## PATENT INFO ABBR.:

PATENT NO	KIN	D DATE	WEEK	LA	PG	MAIN IPC	
US 5921625	A	19990713	(199934)*	EN	11[5]		<
TW 494074	А	20020711	(200328)	ZH			<

### APPLICATION DETAILS:

PATENT NO	KIND	API	PLICATION	DATE
US 5921625 A TW 494074 A			1997-811685 1997-102877	

PRIORITY APPLN. INFO: US 1997-811685 19970305

AN 1999-404300 [34] WPIDS

AB US 5921625 A UPAB: 20060115

NOVELTY - The coupling has an upper termination (71) coupled to an upper end of a seat post (40) and received by an opening of a polyurethane cylindrical damping sleeve (72). A rail (74) couples a seat to the termination so the seat is cantilevered thereto. The seat has a clamp at another end to clamp the rail into engagement with the sleeve onto the termination. A bearing (42) rotates the seat while the rider pedals.

USE - For attaching a cycle seat to a cycle frame.

ADVANTAGE - Due to the improved cushioning or resiliency of the seat, any relative motion between the rider and seat is minimized so that the rider will be more comfortable and safe from injury. DESCRIPTION OF DRAWINGS - The figure shows a perspective exploded view of a mounting structure for coupling a seat to a cycle frame.

Seat post (40)

Bearing (42)

Upper termination (71)

Polyurethane cylindrical damping sleeve (72) Rail (74)

L22 ANSWER 19 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:680338 HCAPLUS Full-text

TITLE: Ink cartridge for electrophotographic printer

INVENTOR(S):
Park, Kyong Ho

PATENT ASSIGNEE(S): Samsung Electronics Co, Ltd., S. Korea

SOURCE: Repub. Korea, No pp. given

CODEN: KRXXFC

DOCUMENT TYPE: Patent LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 224909	B1	19991015	KR 1997-33545	19970718 <
PRIORITY APPLN. INFO.:			KR 1997-33545	19970718 <

PURPOSE: An ink cartridge device for an electrophotographic printer is provided to easily utilize a space inside the printer and to considerably reduce an amount of used ink through an ink cartridge. CONSTITUTION: An ink cartridge device for the electrophotographic printer includes a plurality of ink cartridges(31) having a discharge part selectively opened and shut, a rail member(32) having at least one space(32a) for receiving the ink cartridge inside, a fixed elastic member(34) mounted in a front part of the space to apply elastic force to a front end of the cartridge when the ink cartridge is seated inside the rail member, a hook member(35) mounted at a rear part of the rail member for supporting the rear part of the cartridge, an elastic member elastically deflecting the hook member, and a connector(38) mounted at a front part of the rail member for opening the discharge part of the cartridge and at the same time forming oil path.

L22 ANSWER 20 OF 46 WPIDS COPYRIGHT 2009 THOMSON REUTERS on SIN

ACCESSION NUMBER: 1998-102982 [10] WPIDS

DOC. NO. CPI: C1998-034058 [10] DOC. NO. NON-CPI: N1998-082531 [10]

TITLE: Aircraft sealing material with high scratch resistance

for sealing between passenger cabin and under-floor area

- has a first polymer layer with high

compressibility and a second, more dense polymer

layer with high scratch resistance bonded to the upper

surface of the first layer by an adhesive strip

DERWENT CLASS: A95; P73; Q25; Q65

INVENTOR: BURMANN G; RUESCH H; RUESCH H J

PATENT ASSIGNEE: (GORE-C) GORE & ASSOC GMBH W L; (GORE-C) GORE & ASSOC INC

WL

COUNTRY COUNT: 19

PATENT INFO ABBR.:

PATENT NO	KIN	D DATE	WEEK	LA	PG	MAIN IPC	
EP 822357	A1	19980204	(199810)*	DE	7[2]		<
DE 19630973	A1	19980205	(199811)	DE	6[2]		<
JP 10077464	А	19980324	(199822)	JA	5		<

## APPLICATION DETAILS:

PATENT NO	KIND	APE	LICATION	DATE
EP 822357 A1		EP	1997-112703	19970724
DE 19630973 A1		DE	1996-1963097	73 19960731

JP 10077464 A

JP 1997-204673 19970730

PRIORITY APPLN. INFO: DE 1996-19630973 19960731

AN 1998-102982 [10] WPIDS

AB EP 822357 A1 UPAB: 20050704

A sealing material (10) comprises a first layer (20) and a second layer (30) with a higher scratch resistance attached to at least part of the upper surface of the first layer.

USE - The sealing material is located on a shoulder of a seat rail in an aircraft to prevent fluid leakage from the passenger cabin into the underfloor area.

ADVANTAGE - The seal has greater resistance to damage from sharp objects, e.g. edges of metal clamps, and hence prevents corrosion between adjacent parts made of different materials.

### Member (0002)

ABEQ DE 19630973 A1 UPAB 20050704

A sealing material (10) comprises a first layer (20) and a second layer (30) with a higher scratch resistance attached to at least part of the upper surface of the first layer.

USE - The sealing material is located on a shoulder of a seat rail in an aircraft to prevent fluid leakage from the passenger cabin into the underfloor area.

ADVANTAGE - The seal has greater resistance to damage from sharp objects, e.g. edges of metal clamps, and hence prevents corrosion between adjacent parts made of different materials.

### Member (0003)

ABEQ JP 10077464 A UPAB 20050704

A sealing material (10) comprises a first layer (20) and a second layer (30) with a higher scratch resistance attached to at least part of the upper surface of the first layer.

USE - The sealing material is located on a shoulder of a seat rail in an aircraft to prevent fluid leakage from the passenger cabin into the underfloor area.

ADVANTAGE - The seal has greater resistance to damage from sharp objects, e.g. edges of metal clamps, and hence prevents corrosion between adjacent parts made of different materials.

L22 ANSWER 21 OF 46 WPIDS COPYRIGHT 2009 THOMSON REUTERS on STN

ACCESSION NUMBER: 1997-167284 [16] WPIDS

DOC. NO. CPI: C1997-054152 [16]
DOC. NO. NON-CPI: N1997-137572 [16]

TITLE: Linear quide for vehicle seats comprising

rails with springing and damping members - mfd. from a microcellular polyurathana elastomer and

stretched between rails

DERWENT CLASS: A95; Q14

PATENT ASSIGNEE: (GRAM-N) GRAMMER AG

COUNTRY COUNT: 1

# PATENT INFO ABBR.:

PATENT NO	KIND DATE	WEEK LA	PG	MAIN IPC	
DE 29622262	U1 19970227	' (199716)* DE	8[1]		<

# APPLICATION DETAILS:

APPLICATION DATE PATENT NO KIND \_\_\_\_\_\_ DE 29622262 U1 DE 1996-29622262 19961221

PRIORITY APPLN. INFO: DE 1996-29622262 19961221

AN 1997-167284 [16] WPIDS

AB DE 29622262 U1 UPAB: 20050519

Vehicle seats are mounted on two rails (10, 12), positioned next to one another and displaceable relative to one another, with a springing and damping arrangement of a member (20) comprising a microcellular polyurathane elastomer which is stretched between the xails. Pref. two separate members are provided, whose springing and damping actions operate in opposite directions of xmil displacement, being mounted in a mirror-image configuration. Reduced cost of mfr. and assembly compared with separate springing and damping units.

L22 ANSWER 22 OF 46 WPIDS COPYRIGHT 2009 THOMSON REUTERS on STN

ACCESSION NUMBER: 1996-223454 [23] WPIDS
DOC. NO. CPI: C1996-070994 [23]
DOC. NO. NON-CPI: N1996-187511 [23]
TITLE: Railroad tie, for mfr. of railroad

track - has composite elastomeric pad and adhesive layer

to inhibit infiltration of sand, water, debris and

relative movement of tie and railroad

rail

DERWENT CLASS: A93; Q41

ABT D C; GOLINKIN H S; KISH F A; RANCICH M J INVENTOR:

PATENT ASSIGNEE: (ILLT-C) ILLINOIS TOOL WORKS INC

COUNTRY COUNT:

PATENT INFO ABBR.:

P	ATENT NO	KINI	D DATE	WEEK	LA	PG	MAIN	IPC	
E	P 710743	A1	19960508	(199623)*	EN	10[9]			<
С	A 2161746	А	19960503	(199635)	EN				<
U	S 5549245	A	19960827	(199640)	EN	5[5]			<
U	S 5551632	A	19960903	(199641)	EN	5[5]			<
U	S 5551633	А	19960903	(199641)	EN	5[5]			<
С	A 2161746	С	19990810	(199952)	EN				<

# APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 710743 A1 US 5549245 A		EP 1995-307576 US 1994-333522	19941102
US 5551632 A C	<del>-</del> -	US 1994-333522 US 1994-333522	
US 5551632 A US 5551633 A		US 1995-472303 US 1995-475184	
CA 2161746 A CA 2161746 C		CA 1995-2161746 CA 1995-2161746	

PRIORITY APPLN. INFO: US 1995-472303 19950607

US 1994-333522 19941102 US 1995-475184 19950607

AN 1996-223454 [23] WPIDS

AB EP 710743 A1 UPAB: 20060110

The railroad tie (I) (14) made from concrate has a pad (II)(10) mounted on its upper surface, in use, to receive and engage the lower flange (16) of a railroad (12). (II) is a composite pad comprising an elastomeric pad (III) (30) and bonding means (IV) (40) having an upper surface bonded to the lower surface of (III) so as to resist relative movement between them. (I) further comprising an adhesive layer (V) bonding (IV) to its upper surface so as to resist relative movement between them and to prevent infiltration of sand, water or debris between them. Also claimed are (II) and a railroad track comprising a railroad rail (12) mounted on (I) with its lower flange engaging and resting on (III).

USE - (I) is useful in making railroad track.

ADVANTAGE - (I) retards infiltration of sand, water or debris between (II) and (I) and prevents the deterioration and erosion of the xailxoad track.

L22 ANSWER 23 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1996:187076 HCAPLUS Full-text

DOCUMENT NUMBER: 124:238365

ORIGINAL REFERENCE NO.: 124:44053a,44056a

TITLE: A case study of the effect of lubrication and profile

grinding on low rail roll-over derailments at CSX transportation

AUTHOR(S): Rippeth, D.; Kalousek, J.; Simmons, J. CORPORATE SOURCE: CSX Transportation, Jacksonville, FL, USA

SOURCE: Wear (1996), 191(1-2), 252-5 CODEN: WEARAH; ISSN: 0043-1648

PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

Kingsport and Blue Ridge are two subdivisions of CSX Transportation's Corbin Division. Annually they carry 42 million gross tons (MGT) of predominantly 100 ton coal car traffic through Kentucky, Tennessee, and North Carolina. Because of the mountainous terrain, the track has several sharp curves (up to 14°) and steep grades (up to 1.2%). Between the period of Jan. 1990 through Oct. 1991, eight derailments occurred. Some of the derailments were called low rail roll-over derailments and the others, although not listed as low rail roll-over derailments, had several common features. Under normal operating conditions the track structure would have been considered good. However, because of the rugged conditions on these two subdivisions, the track structure needed strengthening and upgrading. Factors contributing to low xail roll-over include heavy axle loads, under-balanced train speeds, inadequate lubrication, wide track gauge and poor rail head profiles. During the period of the derailments, maintaining track gauge, line and level was a continuous operation. In the sharp curves, damage occurred rapidly to newly replaced timber ties and premium head hardened xail. The average life of the low xail in a 14° curve was 18 mo (60 MGT). These conditions were costly and required a solution Research and tests carried out by National Research Council of Canada, CSX Transportation and Loram Maintenance of Way, led to the development of a comprehensive lubrication and grinding program. The lubrication emphasized friction control between the low rail-wheel interface. The grinding method was changed from corrective to preventive. NRC/LORAM asym. profile geometry of low and high xails was scrupulously maintained. Since the implementation of these two programs, there has not been a low rail roll-over derailment or a derailment with any feature associated with low rail roll-over derailment.

L22 ANSWER 24 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:818209 HCAPLUS Full-text

TITLE: Rail tie formed of

abrasion-resistant concrete composition

Young, Hartley Frank INVENTOR(S):

PATENT ASSIGNEE(S): Mckay Australia Limited, Australia SOURCE: Brit. UK Pat. Appl., No pp. given

CODEN: BAXXDU

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

KIND DATE APPLICATION NO. DATE PATENT NO. GB 2231902 **-**---\_\_\_\_\_ 19901128 GB 1990-9055 19900423 <--A AU 1989-4137 A 19890512 <--PRIORITY APPLN. INFO.:

AB Unavailable

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS)

L22 ANSWER 25 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1989:155629 HCAPLUS Full-text DOCUMENT NUMBER: 110:155629

ORIGINAL REFERENCE NO.: 110:25751a,25754a

TITLE: Study of smoke emission of materials used in passenger

rail vehicles

AUTHOR(S): Kaminski, A. CORPORATE SOURCE:

Railway Sci. Tech. Cent., Pol. State Railways, Warsaw,

04-275, Pol.

Journal of Fire Sciences (1988), 6(4), SOURCE:

267-89

CODEN: JFSCDV; ISSN: 0734-9041

DOCUMENT TYPE: Journal English LANGUAGE:

Smoke emission of 47 materials used in railway cars was evaluated. Equations for rate of luminance decreased vs. time was derived for very accurate approximation of results. The majority of materials (66%) had little smoke emission and met international xmilway flammability and smoke requirements. However, it was necessary to replace PVC-based floor linings, PVC covered textiles, and some wires as well as flame-retarded polyester laminates, flameuntreated rubber products, and some synthetic and natural products of small importance (e.g., natural leather).

L22 ANSWER 26 OF 46 WPIDS COPYRIGHT 2009 THOMSON REUTERS on STN

ACCESSION NUMBER: 1987-085980 [12] WPIDS

DOC. NO. CPI: C1987-035850 [21] DOC. NO. NON-CPI: N1987-064598 [21]

TITLE: Elastomeric pad for placing under railroad

> rail - has mutually offset patterns of dimples on opposite sides to redirect vertical loads

DERWENT CLASS: A88; Q41; Q63 INVENTOR: MCQUEEN P J

PATENT ASSIGNEE: (ACME-N) ACME PLASTICS INC; (MCQU-I) MCQUEEN P J

COUNTRY COUNT: 15

PATENT INFO ABBR.:

PATENT NO	KIND DAT	E WEEK	LA	PG	MAIN	IPC
US 4648554	A 1987	0310 (198712)*	EN	9[4]		 <
EP 279094	A 1988	0824 (198834)#	EN			<
AU 8769141	A 1988	0825 (198843)#	EN			<
CA 1257576	A 1989	0718 (198933)	EN			<

### APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION DATE
US 4648554 A EP 279094 A		US 1984-666442 19841030 EP 1987-301505 19870220
AU 8769141 A		AU 1987-69141 19870223

PRIORITY APPLN. INFO: US 1984-666442 19841030 3 1984-00044. EP 1987-301505 19870220

AU 1987-69141 19870223

1987-085980 [12] WPIDS AN

US 4648554 A UPAB: 20050424 AB

> Pad for placing between a xailway tie and a steel xail to attenuate dynamic impact and vibrational loads has on each side a pattern of spaced dimples interconnected by flat areas, with each dimple of arcuate shape and the patterns being offset so that each dimple of one pattern underlies the area between four of the other pattern and is tangential to all four. The pad is pref. of ethylene-vinyl acetate, polyethylene, polyurethame, neopren or natural rubber and may be irradiated at 5.0-17.0 Mrads. Each dimple pref. defines a hemispherical concavity, and the dimples in each pattern are equally spaced in rows. The pad is pref. rectangular, with sides of 5-9 inches, and has a durometer hardness of 55-85 to give direct compression stress and total dynamic deflection not exceeding 1500 psi and 0.03 inch. ADVANTAGE - The dimples form a network of interlocked arch bridges for directing vertical loads into the horizontal plane and distributing compressive stresses uniformly through the pad.

L22 ANSWER 27 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1985:438324 HCAPLUS Full-text

DOCUMENT NUMBER: 103:38324 ORIGINAL REFERENCE NO.: 103:6223a,6226a

Polyurethane adhesives for concrete

PATENT ASSIGNEE(S): Nisshin Spinning Co., Ltd., Japan; Japan National

Railways

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 6003 <b>848</b> 4	А	19850228	JP 1983-146640	19830812 <
JP 0304 <b>89</b> 57	В	19910726		
PRIORITY APPLN. INFO.:			JP 1983-146640	19830812 <

Prepolymers of an aromatic diisocyanate with a polyol with mol. weight >60 and AB having residual isocyanate content 0.5-10% have improved adhesion to concrete

blocks for railroad ties. Thus, TDI 73.4, 1,4-butanediol 6.7, and 1,3-butanediol 20.1 parts were mixed. Two cement blocks were coated with the mixed composition, and the region between the two blocks was embedded with a polyurethane composition and stored 24 h to give a joined block with high concrete-to-polyurethane bond strength.

L22 ANSWER 28 OF 46 COMPENDEX COPYRIGHT 2009 EEI on STNDUPLICATE 1

ACCESSION NUMBER: 1985-090124231 COMPENDEX Full-text

TITLE: FIRE PERFORMANCE AND CHARACTERISTICS OF BRITISH

RAIL FLEXIBLE POLYURETHANE FOAM

SEATING.

AUTHOR(S): Gotch T.M.; Morris V.C.

CORPORATE SOURCE: Gotch T.M.; Morris V.C. (British Railways Board,

Hazards, Unit, Derby, Engl, British Railways Board,

Hazards Unit, Derby, Engl)

SOURCE: Cellular Polymers (1985) Volume 4, Number 4,

pp. 289-303, 14 refs.

CODEN: CELPDJ ISSN: 0262-4893 Journal; Article; Experimental

LANGUAGE: English

DOCUMENT TYPE:

ENTRY DATE: Entered STN: 2 Jan 2009

Last updated on STN: 2 Jan 2009

AN 1985-090124231 COMPENDEX Full-text

This paper has traced the evolution of the modern railway seat and the facilities available to examine it for fire safety. It also indicates the difficulty a highly informed organization has in deciding the relevance of fire test results. British Rail (BR) relies upon its own expertise to alert the designer to the fire properties of its proposed seating. A detailed assessment program, including the use of barrier polyurethane foams, is being initiated to provide a greater understanding of the fire mechanism, and the uprating of the fire resistance of the whole range of seating.

L22 ANSWER 29 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1985:136896 HCAPLUS Full-text

DOCUMENT NUMBER: 102:136896

ORIGINAL REFERENCE NO.: 102:21427a,21430a

TITLE: Open burning of creosote treated rail

ties: a case study in health risk assessment

AUTHOR(S): Becker, Dennis; Eckhardt, Gary; Seltz, John; Johnson,

Tim

CORPORATE SOURCE: Minnesota Pollut. Control Agency, Roseville, MN, USA

SOURCE: Proceedings - APCA Annual Meeting (1984),

77th(Vol. 6), 84-102.6, 14 pp. CODEN: PAAME3; ISSN: 0193-9688

Journal

DOCUMENT TYPE: Journal LANGUAGE: English

AB High concns. of total suspended particulates resulted immediately downward from the open burning of railroad ties or greenwood. Particulater organic matter emissions were higher from burning creosote-treated wood than from the burning of greenwood, including emissions of carcinogens. Rough ests. of cancer risk indicate that 1- time acute exposure at a sufficient distance results in insignificant risk but multiple exposures may present unacceptable risks.

L22 ANSWER 30 OF 46 WPIDS COPYRIGHT 2009 THOMSON REUTERS on STN

ACCESSION NUMBER: 1982-12039E [07] WPIDS

TITLE: Rectilinear guide rail for seats -

with harp-like strips on elastomer hoses guiding balls in

rectangular tube

DERWENT CLASS: A95; Q14; Q61; Q62

INVENTOR: VOGEL I

PATENT ASSIGNEE: (VOGE-I) VOGEL I; (VOGE-N) VOGEL I & CO GMBH K

COUNTRY COUNT: 15

# PATENT INFO ABBR.:

PA	TENT NO	KIN	D DATE	WEEK	LA	PG	MAIN	IPC
EP	45406	A	19820210	(198207)*	DE	12		
DE	3029127	А	19820225	(198209)	DE			
DK	8103381	А	19820308	(198213)	DA			
FI	8101631	A	19820331	(198216)	FI			
US	4392692	A	19830712	(198330)	EN			
EP	45406	В	19840307	(198411)	DE			
HU	29002	Т	19840130	(198411)	HU			
SU	1097188	A	19840607	(198504)	RU			

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION DATE	
EP 45406 A		EP 1981-105503 19810714	-
DE 3029127 A		DE 1980-3029127 19800731	
SU 1097188 A		SU 1981-3313395 19810730	

PRIORITY APPLN. INFO: DE 1980-3029127 19800731

AN 1982-12039E [07] WPIDS AB EP 45406 A UPAB: 20050420

Rectilinearly adjustable guide xail for passanger seats in vehicles consists of an outer rectangular tube and an inner channel which can be moved relative to each other. At least two balls are arranged between them. The balls run on the tracks of two long guide strips with a cross-section resembling a lyre. At least the outer wings of one guide rest on elastomer tubes, pref. made of polyurethane. A sliding strip, made of spring steel, lies between the web of the channel and one side of the tube. This eliminates any rattle, loaded or unloaded and can be produced at low cost.

L22 ANSWER 31 OF 46 WPIDS COPYRIGHT 2009 THOMSON REUTERS on STN

ACCESSION NUMBER: 1980-84192C [47] WPIDS

TITLE: Adhesive of asphalt, styrene\*-butadiene\*

copolymer and processing oil - for filling gap

between railroad cross tie and tie plate

DERWENT CLASS: A18; A93; G04; Q41

INVENTOR: PENNINO C J

PATENT ASSIGNEE: (KOPP-C) KOPPERS CO INC

COUNTRY COUNT: 1

PATENT INFO ABBR.:

PATENT NO	KINI	D DATE	WEEK	LA	PG	MAIN IPC	
US 4231908		19801104	(198047)*	EN			<

## APPLICATION DETAILS:

PATE	ON TV	KIND	APPLICATION DATE
US 42	231908 231908 231908	A	US 1977-766447 19770207 US 1977-846685 19771031 US 1979-14336 19790223

PRIORITY APPLN. INFO: US 1979-14336 19790223 US 1977-766447 19770207 US 1977-846695 19771031

AN 1980-84192C [47] WPIDS

AB US 4231908 A UPAB: 20050419

Gap-filling adhesive compsn comprises 65-75 wt% asphalt 10-20 wt% styrene butadiene copolymer of M. wt 60000-91000 and 7-25 wt% processing oil. Asphalt has softening point 75-100 degrees C and penetration 10-50. Processing oil has viscosity 427-2500 poises at 100 degrees F and flash point 210-250 degrees C. Compsn has viscosity 100-300 poises at 150 degrees C. Compsn. is used between a tie plate of polyolefin, e.g. high density polystyrene or polypropylene, or polyurathane and the dapped area of a wood, concrete or polyethylene railroad cross tie. The rail is mounted on the assembly of cross tie and tie plate and is secured to the cross tie with spikes. In use the compsn is squeezed into the area between side wall of the dapped area and the shoulder of the tie plate and into the spike slots to form a barrier against water and abrasive materials which might damage the cross tie.

L22 ANSWER 32 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1980:182272 HCAPLUS Full-text

DOCUMENT NUMBER: 92:182272

ORIGINAL REFERENCE NO.: 92:29545a,29548a

TITLE: Electric insulator plates for rail

ties

INVENTOR(S): Kita, Nobuyuki; Hoshi, Ikuo; Hasegawa, Hiroshi

PATENT ASSIGNEE(S): Hitachi Chemical Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
JP 55004829	A	19800114	JP 1978-77234		19780626 <
JP 57028445	В	19820616			
PRIORITY APPLN. INFO.:			JP 1978-77234	Α	19780626 <

Paper was impregnated with a composition from melamine resin, phenolic resin, and powdered quartz, laminated, and surface-roughed to give elec. insulator plate used under rail tie plates on concrete tracks, and the insulator plates had high tracking resistance and frictional coefficient. Thus, a 7:3 (solids ratio) melamine-phenolic resin varnish mixture was mixed with 20 phr powdered quartz, impregnated into paper which was then laminated with similarly treated paper using rough-surfaced pressing plates to give an insulator plate.

L22 ANSWER 33 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1980:182252 HCAPLUS Full-text

DOCUMENT NUMBER: 92:182252

ORIGINAL REFERENCE NO.: 92:29545a,29548a

TITLE: Electric insulators for railroad ties

INVENTOR(S): Kita, Nobuyuki; Hoshi, Ikuo; Hasegawa, Hiroshi;

Watanabe, Takemi

PATENT ASSIGNEE(S): Hitachi Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 54162781	A	19791224	JP 1978-71909	19780614 <
JP 57019021	В	19820420		

PRIORITY APPLN. INFO.: JP 1978-71909 A 19780614 <--

AB A sheet molding compound from unsatd. polyester 100, powdered quartz 50-100, and glass fiber 15-86 parts was surface-roughed to give an elec. insulator plate used under rail time plates on concrete tracks. Thus, an unsatd. polyester composition containing 60 phr CaCO3, 60 parts powdered quartz, and other ingredients, such as hardener, color, thickener, etc. was impregnated into a glass mat and molded in a rough-surfaced mold at 140° and 100 kg/cm2 to give an insulator plate with higher tracking and insulation resistance than a phenolic resin-impregnated paper laminate.

L22 ANSWER 34 OF 46 COMPENDEX COPYRIGHT 2009 EEI on STN ACCESSION NUMBER: 1980-020001639 COMPENDEX Full-text

TITLE: DESIGN REFINEMENTS MAKE THE STEEL SLEEPER VIABLE.

AUTHOR(S): Brown J.H.

SOURCE: Railway Gazette International (1979) Volume

135, Number 10, pp. 902-906, 14 refs.

CODEN: RWGIAN ISSN: 0373-5346

DOCUMENT TYPE: Journal

ENTRY DATE: Entered STN: 2 Jan 2009

Last updated on STN: 2 Jan 2009

AN 1980-020001639 COMPENDEX Full-text

The author describes how careful investigation into the optimum rolled section for different loadings and duty cycles has produced a range of track ties which are competitive with wood and concrete, bearing in mind the long life and high scrap value. Trials with 2 500 heavy-duty steel track ties on the iron ore line with 30-ton axleloads have proved successful; two other types for main and secondary lines have been developed. One-piece polyethylene pads insulate the xail from track tie and fastenings to permit the use of track circuits.

L22 ANSWER 35 OF 46 WPIDS COPYRIGHT 2009 THOMSON REUTERS on STN

ACCESSION NUMBER: 1977-39975Y [23] WPIDS

TITLE: Insulating fish-plate for rail connection -

with steel core sheathed in polyurethane resin

DERWENT CLASS: A95; Q41

PATENT ASSIGNEE: (HAGA-I) HAGANS F

COUNTRY COUNT: 1

PATENT INFO ABBR.:

PATENT NO KIND DATE WEEK LA PG MAIN IPC DD 124542 A 19770302 (197723)\* DE

APPLICATION DETAILS:

PATENT NO KIND APPLICATION DATE DD 1976-191694 19760303 DD 124542 A

PRIORITY APPLN. INFO: DD 1976-191694 19760303

AN 1977-39975Y [23] WPIDS AB DD 124542 A UPAB: 20050417

The steel core, which has the shape of a standard fishplate, is sheathed in polyurethane-base resin by casting, and pref. the height of the steel core is maintained approx. 2-5 mm lower than the fish-plate seating of the rail, and the core is heated prior to being sheathed in resin. The sheath is pref. cast with a greater thickness at the centre than over the remainder of its surface, and consists of closely cross-linked polyurathana casting resin. The fishplate has high mechanical strength, and the same physical characteristics as conventional fish-plates, but with high electrically insulating properties.

L22 ANSWER 36 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1968:461348 HCAPLUS <u>Full-text</u>
DOCUMENT NUMBER: 69:61348

69:61348

ORIGINAL REFERENCE NO.: 69:11495a,11498a

Electrical resistivity of concrete TITLE:

AUTHOR(S): Monfore, G. E.

Res. and Develop. Lab., Portland Cem. Assoc., CORPORATE SOURCE:

Portland, OR, USA

SOURCE: Journal of the PCA Research and Development

> Laboratories (1968), 10(2), 35-48 CODEN: JPCLAB; ISSN: 0097-6792

DOCUMENT TYPE: Journal LANGUAGE: English

Elec. properties of concrete are of importance in several applications; of current interest is the elec. resistivity of concrete cross ties since this resistivity affects the operation of railroad signal systems. The test specimens were 1-in. water-cement paste cubes and 4-in. concrete cubes connected into elec. circuits by means of heavy brass plates which contacted opposite faces of a cube through a stiff graphite-water paste. In addition to these plain cubes, other cubes were cast with embedded stainless steel electrodes to better simulate a concrete cross tie that normally has embedded stainless steel bolt anchors. Three ASTM Type I cements were used in the studies. The effect of frequency at a potential of 4 v. was determined as well as the effect of temperature on resistivity of paste, and the effect of potential at a frequency of 1000 Hz. The effect of type of electrode and of continuous moist storage, resistance of pastes at early ages, and the effect of type of cure and of water-cement ratio and time of moist storage were studied. In addition, the effect of drying time on resistance; the effect of admixtures, e.g. (NH4)2HPO4, glycolic acid, hydroxyethyl cellulose, and CaCl2.2H2O, in pastes on resistivity; resistivities of rocks; resistivities and path lengths of mortars and concretes; and effect of coatings (polyester, linseed oil, bituminous paint) of concrete on resistance were determined Moist concrete is essentially an electrolyte having a resistivity of the order of 104 ohm-cm., a value in the range of semiconductors. Oven-dried concrete has a resistivity of the order of 1011 ohm-cm., a reasonably good insulator. Coatings applied to dried concrete were ineffective in preventing ingress of water and consequent lowering of resistance. Thus, resistance of concrete cross ties probably cannot be increased

sufficiently by use of admixt. or coatings on the ties. However, methods of insulating rails from concrete cross ties may achieve satisfactory rail-to-rail

resistance. 15 references.

OS.CITING REF COUNT: 22 THERE ARE 22 CAPLUS RECORDS THAT CITE THIS

RECORD (22 CITINGS)

L22 ANSWER 37 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1955:22295 HCAPLUS

DOCUMENT NUMBER: 49:22295
ORIGINAL REFERENCE NO.: 49:4333d-f

TITLE: Cushion for railroad ties comprising a

copolymer of styrene and isobutylene, a

bituminous material, and a fibrous material Clayton, Robert E., Jr.; Newberg, Raymond G.

PATENT ASSIGNEE(S): Standard Oil Development Co.

DOCUMENT TYPE: Patent
LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

INVENTOR(S):

The cushions are placed between the real and the tie to prevent the tie from breaking down under the pounding it receives during passage of the trains. The copolymer is formed by cooling to a temperature below -70° a reaction mixture containing 40-60% styrene and the balance isobutylene in 1-4 vols. of MeCl and then adding as a catalyst, AlCl3 dissolved in MeCl. Asbestos is the most suitable fibrous material. The bituminous material can be selected from a variety of natural and industrial products. A composition consisting of 25 parts of a copolymer (50 parts isobutylene and 50 parts styrene), 25 parts petroleum asphalt having a softening point of 220°F., and 50 parts short asbestos (chrysolite) was prepared Test specimens were formed and subjected to a compressive force of 800 lb./sq. in. When such a load was first applied, the specimens exhibited appreciable flow. There is a limit to such flow, however, and the final thickness that can be depended upon is ample.

L22 ANSWER 38 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1953:10634 HCAPLUS DOCUMENT NUMBER: 47:10634

DOCUMENT NUMBER: 47:10634
ORIGINAL REFERENCE NO.: 47:1914a-b

TITLE: Nonwater-absorptive concrete structure

having high strength

INVENTOR(S):
Fukushima, Sanaji

DOCUMENT TYPE: Patent LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

AB A suitable mixture of cement, sand, and gravel is treated with 28-35% water (based on the weight, the cement), the mixture is placed in a mold and hammered with compressed air with a pressure of 80-120 lb./sq. in. and 700-1600 hammerings/min.

ACCESSION NUMBER: 1953:10632 HCAPLUS

DOCUMENT NUMBER: 47:10632 ORIGINAL REFERENCE NO.: 47:1914a

TITLE: Manufacture of reinforced-concrete sleepers

Gross, Hans INVENTOR(S): DOCUMENT TYPE: Patent LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE \_\_\_\_\_ DE **8**17114 19511015 DE 1949-P52803 19490824 <--

Unavailable AΒ

L22 ANSWER 40 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1953:10631 HCAPLUS

DOCUMENT NUMBER: 47:10631 ORIGINAL REFERENCE NO.: 47:1913e,1914a

Molded core for the manufacture of hollow bodies from

concrete and other materials

INVENTOR(S): Evans, Wallace A.; Evans, David W.; Sims, Leslie J.;

Evans, Wallace A.; Evans, David W.

DOCUMENT TYPE: Patent LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

KIND DATE APPLICATION NO. PATENT NO. ----\_\_\_\_\_ DE 817110 19511015 DE 1950-E846 19500321 <--

AB Unavailable

L22 ANSWER 41 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1953:10633 HCAPLUS DOCUMENT NUMBER: 47:10633

ORIGINAL REFERENCE NO.: 47:1914a

TITLE: Process and apparatus for molding hollow

concrete blocks

INVENTOR(S): Wilson, John M.

DOCUMENT TYPE: Patent LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE \_\_\_\_\_ DE 817109 19511015 DE 1948-P26008 19481222 <--

AB Unavailable

L22 ANSWER 42 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1951:28255 HCAPLUS

DOCUMENT NUMBER: 45:28255

ORIGINAL REFERENCE NO.: 45:4907g-i,4908a

Composition rail tie with cement

binder

INVENTOR(S): Goddin, Harvie W.; Bulow, Einar V.

DOCUMENT TYPE: Patent LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. US 2529841 19501114 US 1944-567634 19441211 <--

Railroad cross ties are formed by mixing the following proportions of AΒ materials (by volume) with water and casting into molds: pulverized pyroxite 20-28, pulverized diatomite 11 to 19, granular quartzite 27 to 45, and portland cement 22-28% as a hardening agent. Most of the pyroxite and diatomite should pass the 200-mesh screen and substantially all the quartzite should be coarser than 1/16-in. size. The ties produced by this method have the advantage of being flexible, but not friable, a nonconductor of electricity, heat, and sound, and to possess half the weight of concrete. They possess good volume stability, low absorption, and high resistance to dilute acids and thermal shock.

L22 ANSWER 43 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1917:14601 HCAPLUS

DOCUMENT NUMBER: 11:14601 ORIGINAL REFERENCE NO.: 11:2954q-i

TITLE: Reinforced concrete

INVENTOR(S): Cook, F. DOCUMENT TYPE: Pat.ent. Unavailable LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. \_\_\_\_\_ GB 107868 19170719 GB 1916-12575 19160905 <--

Concrete, consisting preferably of 1 part of cement and 5 parts of ashes as AΒ described in 23,511, 1912, is strengthened by the insertion during molding of longitudinally arranged flat strips of metal in one or more layers; the faces of the strips are horizontal and adjacent strips in the same or different layers are arranged so as to break-joint. The ingredients are first mixed dry and then H2O is sprinkled on during a further process of mixing. The molded articles, such as xail- times, girders, and blocks may be dried in shelves in a current of cold air for a period of 28 days; the bodies are saturated with H2O every 7 days. Arches and floors may be made from this concrete.

L22 ANSWER 44 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1908:8903 HCAPLUS <u>Full-text</u>

2:8903 DOCUMENT NUMBER: ORIGINAL REFERENCE NO.: 2:2012c-f

TITLE: Metal and Reinforced Concrete Ties SOURCE: Railroad Gazette (1908), 44, 593-5 CODEN: RRGAAW; ISSN: 0097-6679

DOCUMENT TYPE: Journal LANGUAGE: Unavailable

In Europe the metal tie has passed the experimental stage, the principles being generally accepted and only the details remaining to be standardized. In this country it has not yet become immediately necessary to find a substitute for the wooden tie, but a number of designs of such ties, both metal and reinforced concrete, have been and are being tried on various American railroads. Three requisites in the design of such ties are: (1) An

efficient method of fastening the rail to the tie; (2) a considerable amount of elasticity in the tie itself; and (3) satisfactory insulation. Metal ties of the inverted trough type are used in Germany and on narrow gage track in Mexico, but have been found too weak to stand up under the much heavier trains used in this country. Several other designs have been tried in this country, but the Carnegie tie is the only steel tie which has been made in large numbers. It is an I-beam section 5.5 in high; the top is 4.5 in. and the base 8 in. wide. A number of designs of reinforced concrete ties have been tried on various roads from time to time, but in most instances they have been removed in a comparatively short time because of breakage or disintegration. Some designs have been found quite satisfactory for low speed tracks, yards and sidings. Names, quantities, costs, etc., are given throughout the article.

L22 ANSWER 45 OF 46 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1906:129601 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 0:129601

TITLE: IMPROVEMENT IN RAILROAD TIES

INVENTOR(S): Sterling, William H.

PATENT ASSIGNEE(S): USA SOURCE: U.S.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 139031	Α	18730520	US	<

To all whom it may concern: Be it known that I, WILLIAM H. STERLING, of the AΒ city and county of San Francisco, State of California, have invented or discovered an Improved Composition for and Method of Constructing Railway Ties; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing and letters marked thereon, (see original document for drawing). The first part of my invention consists in the manufacture of ties for railways and permanent ways by compressing in a suitable mold, by powerful pressure, a compound of very-finely powdered or floured ashes of coal, wood, or any vegetable growth with a viscid glutinous substance, such as linseed-oil, cotton-seed oil, or the resinous exudations from pine trees, and asphaltum or bitumen, the ingredients to be properly prepared and mixed or compounded, as hereinafter described. The second part of my invention consists, mainly, in the introduction of pieces of wood, provided with screws or threads, placed vertically or otherwise in the tie, so that they cannot be withdrawn, and through which spikes can be driven to fasten the rail down to the tie. I am aware that recent attempts have been made to manufacture railway ties with a composition of asphaltum and vegetable fiber alone, but as yet unsuccessfully from the lack of the proper tempering agents or ingredients, which my invention supplies, the compound being either too hard and brittle or too soft and yielding for the purposes claimed. My invention of finely-powdered ashes and linseed-oil or cotton-seed oil as a tempering agent, and my method hereinafter described of affording a wooden base or bed, in which nails or spikes may be firmly driven and withdrawn, renders a valuable invention practical and very useful.

L22 ANSWER 46 OF 46 WPIDS COPYRIGHT 2009 THOMSON REUTERS on STN ACCESSION NUMBER: 1970-88511R [48] WPIDS

TITLE: Railway tie plate of plastics material

DERWENT CLASS: A21; A25; A95

PATENT ASSIGNEE: (KOPP-C) KOPPERS CO INC

COUNTRY COUNT:

PATENT INFO ABBR.:

PATENT NO KIND DATE WEEK LA PG MAIN IPC

CA 856076 A (197048)\* EN

PRIORITY APPLN. INFO: US 1966-561232 19660628

AN 1970-88511R [48] WPIDS

AB CA 856076 A UPAB: 20050413

Rail support comprises a rectangular railroad tie with a tie plate of nonflowable plastics material, e.g. polyurethane, adhesively bonded to its upper to seal the interface between the tie and a tie plate. The rail is secured to the time by a holding device spaced from the tie plate. Pref. the railroad tie is of wood, and the polyurathane has tensile strength (ultimate) 4000-8000 psi; % elongation at break 200-600; modulus at 100% and 300% elongation of 1400-2400 psi and 2400-3800 psi respectively; compressive strength at 10% deflection of 700-1500 psi, and 20% deflection of 1300-2400 psi.

### SEARCH HISTORY

# => d his ful

(FILE 'HOME' ENTERED AT 15:51:20 ON 11 SEP 2009)

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FILE 'HCAPLUS' ENTERED AT 15:51:27 ON 11 SEP 2009
                 E STOLARCZYK CRAIG B/AU
L1
               1 SEA ABB=ON "STOLARCZYK CRAIG B"/AU
                 E LOOMIS ROBERT M/AU
L2
               3 SEA ABB=ON ("LOOMIS ROBERT"/AU OR "LOOMIS ROBERT F"/AU OR
                 "LOOMIS ROBERT M"/AU)
                 E ROGERS PAUL D/AU
L3
               2 SEA ABB=ON "ROGERS PAUL D"/AU
                 E TIBA OMAR/AU
L4
              19 SEA ABB=ON ("TIBA O"/AU OR "TIBA OMAR"/AU)
             0 SEA ABB=ON L1 AND L2 AND L3 AND L4
23 SEA ABB=ON L1 OR L2 OR L3 OR L4
L5
L6
L7
              2 SEA ABB=ON L6 AND ?RAIL?
L8
                 ANALYZE L7 1-2 CT : 11 TERMS
            127 SEA ABB=ON RAIL(4A)(?SEAT? OR TIE?)
L9
              5 SEA ABB=ON L9 AND ?POLYURETHAN?
L10
              58 SEA ABB=ON L9 AND (?RESTOR? OR ?REPAIR? OR ?DAMAG? OR
L11
                 ?CONCRETE? OR ?POLYMER? OR ?POLYURETHAN? OR ?AMBIENT? OR
                 ?CURING? OR ?CURE? OR ?TIME? OR ?TEMP? OR ?PRESSURE? OR
                 SAG?(6A)?RESIST? OR SAG? OR ?SHAPE? OR ?RUNOFF?)
              0 SEA ABB=ON L11 AND (GEL? OR SET) (W)?TIME?
L12
              3 SEA ABB=ON L11 AND (GEL? OR SET)
L13
             58 SEA ABB=ON L13 OR L11
L14
             30 SEA ABB=ON L14 AND (PRD<20040324 OR PD<20040324)
L15
             30 SEA ABB=ON L15 AND ?RAIL?
9 SEA ABB=ON L16 AND ?SEAT?
L16
L17
L18
             30 SEA ABB=ON L16 OR L17
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     SEP 2009
           1998 SEA ABB=ON L18
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0 SEA ABB=ON L19 AND (GEL? OR SET)(W) ?TIME?
L20
L21
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FILE HOME

L22

## FILE HCAPLUS

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46 DUP REMOV L20 L18 (1 DUPLICATE REMOVED)

FILE COVERS 1907 - 11 Sep 2009 VOL 151 ISS 12

FILE LAST UPDATED: 10 Sep 2009 (20090910/ED)

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USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2009

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FILE WPIDS

FILE LAST UPDATED: 7 SEP 2009 <20090907/UP>
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FILE JAPIO

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FILE RAPRA

FILE LAST UPDATED: 2 SEP 2009 <20090902/UP>
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- >>> Simultaneous left and right truncation is available in the
   basic index (/BI), and in the controlled term (/CT),
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- >>> The RAPRA Classification Code is available as a PDF file
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- >>> http://www.stn-international.com/rapra\_classcodes.html <<<

FILE PASCAL

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